First report of *Monilinia fructicola* on sweet cherry in Serbia

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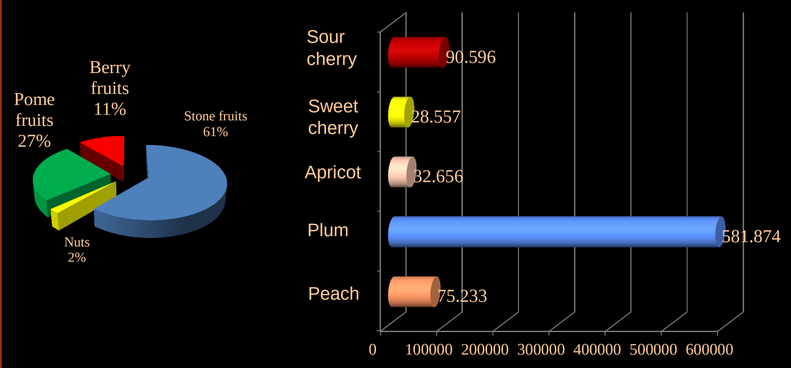
INTRODUCTION

Brown rot is one of the most important pre- and postharvest fungal diseases of stone fruits with a worldwide distribution. In Europe, as well as in Serbia, *M. laxa* and *M. fructigena* are considered to be widely distributed. *M. fructicola*, the most destructive pathogen of the genus *Monilinia,* classified as A2 EPPO quarantine organism, was detected in many countries in Europe since its first discovery in 2001. In Serbia, it was firstly recorded on stored apple and nectarine fruits.

The aim of this study was to determine population structure of brown rot causing fungi in stone fruits in Serbia



Stone fruit production in Serbia

***Monilinia* spp. on cherries**

Distribution of *Monilinia fructicola* in Europe

SAMPLING

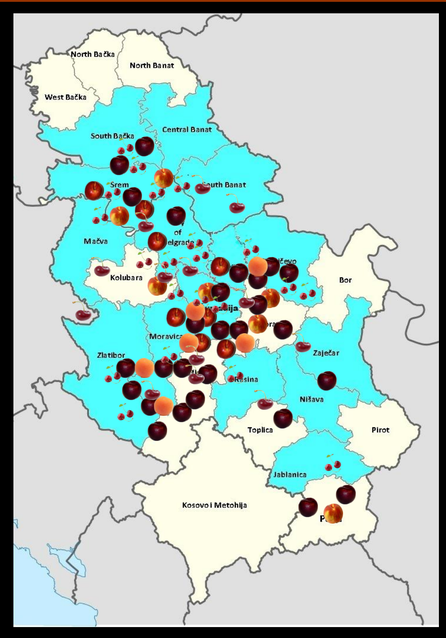
2010 - 2014

6 hosts

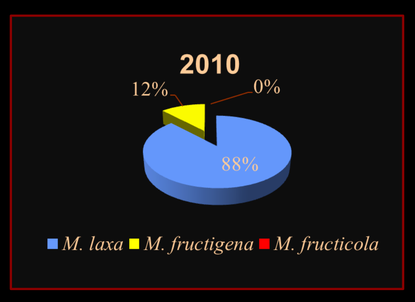
131 locations

16 regions

562 samples

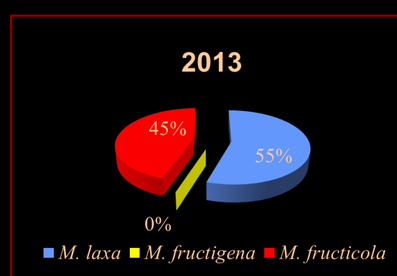


RESULTS



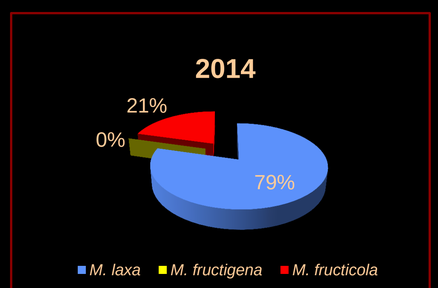
2011
one isolate *M. fructicola* on green market
nectarine

2012
(217 samples)
two isolates *M. fructicola* on green market no isolates in the field
nectarine



20 isolates *M. fructicola* in three independent orchards

nectarine, peach, apricot, plum



16 isolates *M. fructicola* in four independent orchards

nectarine, peach, sweet cherry

During 2010-2014 period 562 samples of stone fruits including 131 samples of sweet and 32 of sour cherrries with symptoms of twig blight and fruit rot were collected.

Based on Multiplex PCR results, phylogenetic analysis and morphological characterization, *M. laxa* was identified as a prevalent causal agent of brown rot of stone fruits in Serbia. This species was also prevalent in both, sweet and sour cherry samples with share ranging from 88% to 97%. In the period 2010-2013, *M. fructigena* was the only minor pathogen detected in cherries, despite the fact that the presence of *M. fructicola* in the other stone fruits in Serbia has already been confirmed. First note of *M. fructicola* occurrence on sweet cherry fruits was in 2014 when 14 isolates were derived from the samples originating from three cherry orchards. The orchards were in the stone fruit growing area where *M. fructicola* was previously detected in peach, nectarine and apricot.

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